

Field Trip Guide: San Diego to the U.S.-Mexico Border*

Barbara E. Fredrich
Department of Geography
San Diego State University

**Portions of this text description are derived from my 1992 AAG Field Guide to Northern Baja California and my field guide summary for the Summer 1998 California Geographic Alliance Geographic Commuter Institute*

Guidelines for a Fun Field Trip

Part I: Identifying Teams

Step 1: Please group yourselves into five groups of four to five persons. You may wish to be seated next to each other and on both sides of the aisle while on the bus.

Step 2: Identify a group **spokesperson** to lead discussions.
You already know that you are going to the U.S.-Mexico Border.

Part II: Learning from Expected Results

We all have an "idea" or notion of what will happen on a field trip, what kinds of landscapes we will see, what kinds of things we will experience. Note there are no right or wrong responses.

Step 3: In the space below quickly list what you expect to see, hear or smell en route to the U.S.-Mexico Border. These "expected results" often frame our mind set with respect to the landscape.

Part III: Documenting your Geographic Reality

Step 4: In the space below each group documents what it is that is actually seen, heard, and smelled during the field trip.

Part IV: Comparing Notes on Geographic Realities.

Step 5: On bus or elsewhere, discuss differences in interpretation.

Part V: Relate the Five Themes of Geography to your Field Trip.

BACKGROUND NOTES ON THE BORDER

The material that follows is derived from 1992 Association of American Geographers Field Trip Guide written by Barbara Fredrich, including items from Fredrich's chapter in Pryde's volume *San Diego: An Introduction to the Region*, and with the Mattingly-Michael Field Trip Guide produced for *Finding a Way* workshop, July 18, 1997.

The Border: An Overview of Tijuana

Tijuana is the fastest growing city in North America and one of the largest cities in Mexico. Urban growth has been phenomenal: a few scattered buildings a century ago; a population of 62,000 by 1950 and a current population estimate of 1.2 million. Since its founding, the city has been linked historically, physically, economically, and socially with the development of San Diego and Southern California. Some 35-36 million people cross one of the 24 gates in San Ysidro or one of the nine gates in Otay Mesa, to the United States per year. Herzog estimates that the San Diego-Tijuana may be the largest international border metropolitan region in the world.

Because Tijuana is an immigrant city it is extremely diverse, including economic migrations from southern Mexico, especially Oaxaca. In addition, the Asian population is unusually large and still growing. Because the border is a port of entry for undocumented immigrants, many people from around the world who are trying to get into the U.S. pass through Tijuana, and some of them make their home south of the border. **(For history, see "Early Tijuana" section at end).**

Thus, Tijuana is a cosmopolitan city with a mixed economy based on industrial and tertiary activities including *maquiladoras* (tax-exempt assembly plants--see pp. 9-11), and tourist-based activities such as hotels, discos, restaurants, as well as the famous Agua Caliente racetrack.

Our view of Tijuana is via I-5, and Dairy Mart and Monument Roads. Tijuana's terrain is deeply dissected, an unfriendly challenge to urban ambitions. This is coupled with an arid climate and few water resources. Time does not permit an in-depth view of the landscape features in representative *colonias* (residential communities), of Tijuana. But if you take any city bus to its end, you could observe housing and overall environmental conditions. The presence or absence of available amenities such as adequate housing, potable water, electricity, paved streets, urban vegetation, and parks are readily observed. The strain of virtually unplanned growth is evident.

FIELD TRIP ITINERARY: GEOGRAPHY ALLIANCE

Depart SDCOE:

We proceed west along Linda Vista Road, passing the University of San Diego (USD) and descending to the intersection of Linda Vista Road with West Morena Boulevard. We head to the south on Morena briefly via the bridge crossing the San Diego River. The freeway interchange is located on the floodplain and as we ascend the I-5 south ramp, to the northwest we can see the eastern end of Mission Bay. To the southeast we see portions of Mission Valley and Fashion Valley shopping malls, new apartments, condominiums, and a golf course, and part of the new San Diego Trolley line.

The ramp curves sharply over I-8 and brings us to I-5 south. To our west (right side) we can see both the San Diego International Airport and the de-commissioned U.S.M.C. Recruit Depot parcel about which a fair amount of controversy concerning the development and planning is growing, and the former General Dynamics plant. To the east side (left) we see portions of Old Town, San Diego's early Spanish-Mexican heritage, now a popular historic, shopping and entertainment center with the Presidio and Mission Hills as backdrop.

As we head south on I-5, which roughly parallels the San Diego Bay, we pass the city's CBD: glass, granite, and brick towers of post-1970 San Diego, interspersed with remaining Victorian and 1920's motif buildings. To the north and east lies Balboa Park.

Near the intersection with the Coronado Bridge, we pass by the community of Logan Heights, or *Barrio Logan*. To your right, note the colorful displays of Hispanic art on the stanchions that support the Coronado Bridge. We pass the shipyards and U.S. Naval Station by National City and the freeway parallels the city's famous "Mile of Cars" But if you look carefully, you may also be able to spot some lovely old Victorian homes in this residential community. We cross the Sweetwater River just north of Chula Vista, another residential community that has an excellent Nature Interpretive Center and the J Street Marina, a park and eateries bordering the San Diego Bay.

I-5 crosses the **Otay River** that flows into the south end of San Diego Bay. Notice the light-colored high-wall divider separating north-bound traffic from south-bound traffic. This construction was to discourage pedestrians from crossing the freeway.

The landscape changes as we cross the residential communities of National City and Chula Vista. As we near the International Border, notice the signs alerting drivers to possible pedestrian traffic on the freeway.

Stop 1: U.S. Border Patrol Station: Imperial Beach.

Here we will see a film on U.S. Border Patrol activities.

En route to the Patrol Station and the Border, we see part of San Ysidro, California, the westernmost

port of entry on the U.S. Mexico border. An average of 106,000 people cross the San Diego-Tijuana border daily, with about 65% of these making a south-to-north journey to a destination in the San Diego region. Combined with San Diego, it is a multimodal distribution center, possessing a full complement of transportation services. The historical antecedents, socio-economic dimensions have been analyzed spatially by a number of binational scholars.

There have been a number of deaths of pedestrians who were attempting to cross the freeway near the International Border. CALTRANS constructed dividers to deter pedestrian traffic, but instead, the divider itself served as a funnel for the migrants who recognized that it would be virtually impossible for the Border Patrol to halt all south-proceeding vehicular traffic while in pursuit of migrants. That construction may have contributed to more pedestrian deaths by vehicles. The dividers were subsequently removed. Since **Operation Gatekeeper**, pedestrian traffic deaths have diminished in this sector of the border zone. In other words, the 1992 pattern that entailed a kind of "border rush" with migrants running in between the south-bound traffic at the International Gates, has been curtailed sharply.

The San Diego Border Patrol agents arrested 629,656 "illegal immigrants" in 1986, the year in which the Immigration Reform and Control Act was promulgated. The purpose of the act was to restore order and legality to the immigration process by granting amnesty to foreigners who had resided illegally in the U.S. continuously since before 1982. Apprehensions declined to 366,757 in 1989, an eight-year low, but by 1990 the figure had increased to 473,321. The 1994 figure was 388,776 and 456,984 for 1996. The figure for undocumented persons crossing the border near Tijuana was about 1500 per day in 1992. The Border Patrol's "working estimate," at that time, was that that number represents one-third of those who actually cross illegally.

If one reviews a map, Hollister Road appears to intersect with Monument Road, our destination; however, the bridge was washed out and is in the process of being repaired. Thus, we will use Dairy Mart Road exit from I-5 to access Monument Road.

As we proceed west note the new Border fence, the holes in the old fence, and the thick coastal sage-chaparral covered canyons. Various methods have been attempted to cope with the entrance of undocumented people. The old mesh (cyclone) Border fence, previously easily surmounted or cut through, is being replaced by a 10 feet tall welded metal fence, considered by some to be a deterrent. You will also notice the white and green-striped vehicles of the U.S. Border Patrol. These vehicles represent the daytime patrol strategies of Operation Gatekeeper. At night the surveillance increases with the use of night vision optics, infra red detectors, helicopter patrols and high-powered night illumination flood-lights which light up the coastal border region. If you check Map B in back, you can see what geography graduate student, Casey Cook, produced relating the changing illegal immigration flows in San Diego as a consequence of Operation Gatekeeper.

The topography and the vegetation enhance the probability of a successful undocumented entrance; however, problems occur for those who reside and/or work near the Border. For example, the undocumented migrants (*pollos*) and the *coyotes* or *polleros*, who smuggle them into the U.S., contend with local *pandillos* or *bajapollos* (street gangs), as they enter the U.S. via these steep canyons adjacent to the floodplain. *Coyote* services average about \$200 per person. A complement to that is

identification forgery. An immigrant may cross the border by simply buying a forged identification card (a **Green Card**), a CA Driver's License, passport etc, and cross the border at legal checkpoints in San Ysidro or Otay Mesa. Prices vary for identification, for about \$6000 one could buy U.S. citizenship with stolen documents.

The Border Patrol, locally known as the *La Migra*, and "El Swat" (the anti-bandit patrol of the San Diego Police Department) monitor the pedestrian traffic along the beach. It is important to remember that in regions that have traditionally sent migrants to the U.S., making a trip to *El Norte* is often considered a rite of passage into manhood. Mexican girls who contribute economically, are not granted the same rights as young men, and are at risk of mistreatment.

Members of communities near the border have voiced their opinions (pro and con) about these measures. Previously, groups of people parked their vehicles near the border and flashed the headlights to illuminate the area where migrants might be hiding in the coastal sage scrub and chaparral vegetation.

The Tijuana watershed is divided by the political barrier of the U.S.-Mexico border and by the cultural and economic disparities of the two nations. Mexico's limited local supplies are augmented by imported water. Hydrology has been altered by urbanization, affecting both flood frequency and groundwater. Valuable ecosystems have been damaged or destroyed on both sides of the border.

Stop 3: The U.S.-Mexico Border and the Tijuana Estuary.

The Mexican-American War (1848) resulted in the delimitation of the International Boundary, a straight line drawn from the Gila River to the Pacific Coast, marked by the Monument at Playas and Borderfield State Park. The Park's access road ascends the marine terrace where the furthest western Monument Marker of the U.S.-Mexico boundary stands. On a clear day, (air pollution is below U.S. minimum standards) Point Loma, downtown San Diego, and the Coronado Islands are visible. The 'lawn' serves as a picnic site and a soccer field for visitors from either side. The floodplain area includes the Tijuana National Wildlife Sanctuary, parcels of agricultural land, and several horse farms. The Imperial Beach Naval Air Station lies to the north of Borderfield State Park.

To the south, we face *Colonia Playas*, sometimes called "*Playas Chilango*," a pejorative, connoting the wealthy migrants from Mexico City who set the tone of change over the past decade, is Tijuana's analog to La Jolla, California. It is an upper-middle and upper-class residential development. The architecture is modern and includes detailed grilled fences and facades. Some of the most exclusive homes, with controlled entrance, face Border Field State Park and the Bull Ring by the Sea. There are several medical clinics, including detoxification clinics nearby.

Note the new multi-storied, colorful residential developments.

If we could walk around the new Border fence, we would see evidence of the coastal erosion. The former street and adjacent ocean-facing structure situated on the cliff edge were undercut by wave action and strong storm surges during the 1970s and 1980s. There are also a number of vacant lots and houses in construction nearby.

Of the Tijuana watershed (4400 square kilometers or 1700 square miles) three-fourths lies in Mexico and one-quarter in the U.S., underscores the potential problems relative to intermittent flooding and sewage overflow in a region of Mediterranean climate. The drainage net emerges from chaparral-grassland-pine forest vegetation in the Peninsular Range, descends through densely urbanized Tijuana, and crosses the Border six kilometers from the ocean. Morena, Barrett (U.S.) and La Presa (Mexico) dams regulate the river.

The Tijuana Estuary is one of the few remaining undeveloped coastal wetlands in California. It is a last refuge for many endangered wetland birds such as the California Clapper Rail. During cold winter mornings surfers drive for miles to ride the waves at the Tijuana Sloughs at the mouth of the Tijuana River, known internationally for having the biggest surf on the California coast. The estuary is not pristine. Each day millions of gallons of untreated urban sewage and industrial water flow from Tijuana into the estuary and nearby coastal waters. Imperial Beach, San Diego's southernmost beach is closed due to pollution more days than any beach in the U.S.

The city of San Diego, The International Boundary and Water Commission (IBWC), the EPA, and the Mexican Secretariat of Urban Development and Ecology (SEDUE, headed by Fernando Calzada Bejar) are among the nine political entities involved in drafting a binational plan for dealing with such issues. The U.S. and Mexico had signed a hazardous waste agreement 14 years ago which required *maquiladoras* to return any chemical waste to the country of origin of that chemical. However, it is difficult to determine the rate of clandestine flow of chemicals. One estimate suggests that about 900 *maquiladoras* (of 2000 in Mexico) produce hazardous waste; there are few estimates as to the quantity, according to Cathy Wimberly, the spokesperson for ChemWaste, the parent company of Tratamientos Industriales de Tijuana, S.A. which operates the largest toxic waste recycling in Baja California. TITISA disposes about 5,500 gallons or 23 tons of hazardous and/or toxic waste per week from 120 *maquiladoras*.

Concentrations of toxic chemicals are known to be higher in Tijuana sewage than that of San Diego. A common solvent is 1,1,1-trichloroethane, listed by the EPA as a major contaminant of well water. Since the passage of Senate Bill 2774, the process to track waste exported back across the border has been tightened; nevertheless, state officials bicker with federal officials as to the arena and extent of active regulation. There is contention that these toxic materials are endangering the lives of Tijuana residents as well as contributing to the sewage problem. There is considerable binational effort to make the *maquiladora* operators more socially and ecologically responsive.

At present there is a binational sewage treatment plant being built just southeast of the estuary to treat Tijuana urban sewage. The plant is designed to treat only household sewage, not the large volume of toxic waste dumped by *maquiladoras* into Tijuana's sewage waters. Concentrations of toxic chemicals, especially petroleum by-products and trichloroethane, are much high than allowed by EPA standards. The sewage treatment plant will only do primary treatment on the sewage, the partially processed sewage will be dumped by a large ocean outfall a few miles offshore. These effluents are more difficult and costly to treat. In addition, the counterclockwise current sweeps the sewage discharged from the relatively shallow waters off the Tijuana estuary into offshore waters toward the shore and beaches to the north. Clearly, as evinced by the broken sewage pipeline off of Pt. Loma and near Mission Bay, neither San Diego nor Tijuana has adequate sewage treatment facilities.

Stop 4: The South Levee

Our purpose here is to see at close range the actual construction of the Border fence.

Stop 5: Otay Mesa and Cactus Road.

The conversion of economic activities is apparent as we approach the Border: agriculture to *maquiladoras* and associated infrastructures. New paved roads lead to *maquiladoras* on the U.S. side; small malls and fast-food establishments serve visitors and employees. Landscaping altered the former patch of tumbleweeds (previously coastal sage and *mima* mounds) to manicured industrial parks. Sony was one of the first plants to be established.

We take a side road, Cactus Road to the south from 905 to observe landscape change near the Border. In the distance we can see the Tijuana International Airport. It has been suggested that San Diego work with Mexico to establish a binational airport. However, this proposal has been reviewed and disputed for several decades. Tijuana is extending the runway to accommodate the increased air traffic.

What Are Maquiladoras?

The verb, *maquilar*, used to define that unit of cornmeal or flour retained by a miller in payment for grinding of these grains. Subsequently, the word evolved to describe the program or structure in which foreign goods are assembled at plants and then are shipped back across the border under minimal duties. Other synonyms are: twin-plants, the in-bond industry, off-shore production, or production sharing. These components are assembled by Mexican workers, 60% of whom are women, for about one-tenth of the cost of those assembled in the United States. Tijuana salaries average \$1.70 per hour. When the product returns to the United States, a U.S. tariff regulation permits a duty-free entry of the U.S. parts within the product. Thus, a company pays tax only on the value added to the product in Mexico. In addition, certain products may enter duty-free under the General Agreement on Tariffs and Trade (**GATT**) an international agreement which favors goods from underdeveloped countries.

Transport systems in the Interstate Commerce Commercial Zone are identified by the type of cartage; nonexempt or exempt. To illustrate, a product leaves an assembly plant in Mexico's interior via a main line Mexican carrier for delivery to the Border. If it is invoiced for delivery to the U.S., the Mexican carrier has the option of either delivering it across the International Boundary to a distribution warehouse located within the ICC Zone of the U.S. border community, or to transship it by assigning it to a Mexican shuttle carrier (licensed to operate within the border community). If the shipment is invoiced for delivery to the Mexican border community only, the shipment must be transshipped via the Mexican shuttle carrier. Approximately 90 percent of the *maquiladora* products cross the Border aboard Mexican shuttle carriers. Once in the U.S. the carrier must deliver the product within the zone and not engage in local cartage; the truck ought to be empty on return, or the cargo must be an international shipment. On the U.S. side, the product is carried by a U.S. trucking company from the Commercial Zone to its ultimate destination.

A large percentage of exempt products is privately transported by Mexican firms; this includes fruits and vegetables. In San Ysidro-Tijuana, the transborder transportation is served by three local concessionaires who compete for international cartage among themselves, excluding U.S. motor carriers. Some *maquiladoras* and U.S. brokers such as Porter Customhouse Broker in San Ysidro, use "bobtails" or trucks/vans used for conveying small orders or shipments. When the *maquiladora* program began, it applied to a 20 kilometer strip along the Border; now full foreign ownership of *maquilas* can occur almost any place in Mexico. The factories are essential to the development of the border region.

Why Is NAFTA Important?

The North American Free Trade Agreement provides for increased trade and profits among participant nations. One estimate suggests that a typical Mexican lives on one-tenth the amount of an average Japanese, but spends nearly the same amount on U.S. products as do the Japanese. Thus the large potential consumer market of Mexicans is a magnet for investors. The economic advantages also translate into potential increased cooperation between the U.S. and Mexico with respect to several mutually-shared problems, including migration, drug-smuggling, water management, environmental contamination, and labor conditions among others. Since the agreement was signed, accords with other Latin American republics have followed.

Since 1988, a number of American farmers moved their labor-intensive agriculture activity to Baja California. The reasons are the low labor costs (\$3.00 per day compared to \$30.00 in the U.S.A.), economical water costs (about \$1.15 per acre foot compared to \$10.00 in Imperial County, and cheap land. San Quintin. John Powell, chairman of the Western Growers Association, noted that one half of the 42 members of WGA are farming or have investments in farm operations in Mexico. Owing to the legal constraints, U.S.A. growers or producers finance the production costs of Mexican farming operations. The joint venture partners then divide the profits at the end of the harvest.

It has been pointed out that *maquiladoras* will cease to exist after the year 2001 when tariffs on manufactured goods between Mexico and the U.S. end, under the NAFTA Agreement. It is likely that they will be re-named an "Export Manufacturing Industry."

How Many Maquilas Are There?

Tijuana has benefitted from the *Programa Nacional Fronteriza* or National Border Program which was initiated by the Mexican government in 1961-1965 to enhance the economy in Mexican border cities. In 1973 there were 68 plants employing about 2000 workers. Tijuana had 94 assembly plants in the mid-1970s which employed about 10,000 workers. Manufacturing in Tijuana got a big boost in 1982 when the Mexican government devalued the peso and radically altered the exchange rate. By 1985, there were over 200 factories and over 25,000 employed. That figure escalated to 300 plants employing some 40,000 workers by 1987. One current figure (1996) lists over 600 plants, one hundred of which are located on Mesa de Otay, with over 71,000 total workers. The factory construction activity continues along the major thoroughfares to the south and east of the city. *Maquiladora*

production in the 1990s remains Mexico's second or third biggest export earner, an estimated \$3.5 billion. In 1996, there were 760,000 persons employed in *maquiladoras* in all of Mexico. Post-NAFTA employment growth in *maquiladoras* has continued to increase, despite the slow-down in the economy since early 1990s.

What Are the Advantages and Disadvantages of Maquiladoras

Some think the entire system is exploitive-using a largely female and young males population to increase the company's profit margin in a weakly unionized setting, without reducing the product's price for the American consumer.

It may act to "destabilize" the traditional family relationships as more children and young women, substitute work in *maquiladoras* for education. In 1970 women comprised 19% of Mexico's Economically Active Population (a census category); in 1990 they comprised 25%, a figure which minimizes their contribution to the economy because it excludes their work in the "informal sector." Such jobs as vending, caring for other children, preparing food for sale, needlework or "outwork" done in homes, is not counted.

Women tend to concentrate in female-dominated occupations such as garment production where "feminine attributes" are valued. While the percentages of women employed in *maquiladoras* have ranged from as much as 80% in the early 1980s, by 1983 more men were hired and by 1996, only 58% of the laborers are female.

In general women earn lower wages than men and women's occupations are considered "unskilled." Under deregulation of labor laws, gender wage differentials have begun to increase according to MacLachlan and Aguilar. Mattingly points out that although Mexican women are less likely to be "fully employed" than are their male counterparts, they nonetheless make important contributions to family survival. Women's earnings are more likely to be shared among family members than are men's.

A Mexican "dependency posture" could be created. Conversely, some charge that the United States economy could be dependent on Mexican *maquiladoras*. At Border Trade Alliance meetings Mexican economists or industrialists such as Jose Manuel Martinque Ayala, the director of industrial development for the Secretariat of Commerce and Industrial Promotion (SECOFI), suggest that Mexico can not stay in the pure assembly phase for sustained growth.

While the program has been criticized for emphasizing the border economy, in fact a significant growth in *maquilas* is occurring in the interior of Mexico. And the lower wage scale in the interior may contribute to further growth.

Where Does GIS Fit In?

The Texas General Land Office, San Diego State University, the University of New Mexico, and the University of Texas at El Paso have been crating a Transboundary Resource Inventory management System (TRIMS) which will

include a geographic information system (GIS) containing comprehensive, geospatial data for the U.S.-Mexico border. There are many specific needs and agendas along the border. Nevertheless, there is agreement that a cooperative effort will result in a mutually satisfactory data base. Long-term plans involve making the geospatial data available on the internet. There are four pilot projects, one of which includes the **Tijuana River Watershed**. This is the map which was recently produced at San Diego State University. Much work in coordinating information from Mexico, including compatible air photography, includes numerous institutions affiliated with 4 state governments in the U.S. and 6 Mexican state governments in addition to the respective federal agencies.

Why the Concern for Development?

South of Tijuana is a 60 mile Baja coastline stretching from Tijuana to Ensenada, the virtues of which are extolled by developers. A construction boom may result in a doubling in the number of U.S. residents by the end of the century. No master plan for coastal development exists at the present. The Mexican Constitution expressly prevents foreigners from outright ownership of land in an area extending 62 miles from the national borders and 31 miles from the coastline. While some developers can document previous construction plans and subsequent failures, in 1973 the Mexican government began allowing foreigners the use of coastal property under a 30 year trust deed called a *fideicomiso*.

Concern that unchecked growth could lead to a proliferation of unsightly residential buildings that will despoil the coastline is shared by some Mexican officials and ecologists. History suggests that the concern is appropriate. Enrique Rangel, chief of the Mexican Migration Service office in Tijuana, estimated that of the 40,000 U.S. citizens in Baja California Norte, some 12,000 Americans reside along the 20 mile sector of the coast from Tijuana to Rosarito Beach (1989). An additional 5000 people winter-vacation in the region in trailers. That promotional flags are hoisted is testimony to the effort to cater to those who want a weekend getaway or winter refuge.

Land invasion posed a problem for former Governor of Baja California, Ernesto Ruffo Appel, the first opposition (PAN) candidate to wrest control from the ruling party (PRI). While his government had distributed 10,762 lots from December 1989 to February 1991, these actions did not meet the increasing demand. One estimate suggests that two new neighborhoods spring up per week. Despite the governor's policy of not permitting them, land invasions continue, some instigated by property owners who are unable to sell (or unwilling to improve) their land, using the invasion to obtain eligibility for indemnification. Small lots, 24 feet by 60 feet, can be purchased for about \$400. But about half the city's land is in dubious legal status or in legal dispute. Again, new construction sites for *maquiladoras* and other residential developments are visible along the major roads in the city.

What about Rodriguez Dam (La Presa)?

La Presa or Rodriguez Dam, constructed in 1922 and is a major source of water for the city. Fredrich has witnessed and photographed the varied levels over time from overflow in 1980 to nearly nothing in 1988. The narrow-gauge railroad tracks and tunnel are present. There is insufficient water to meet Tijuana's potable water needs; hence the city purchases water from San Diego

Notes on Early Tijuana Landscape History

Tijuana celebrated its *centenario* on July 11, 1989. In the nineteenth century, Tijuana, with a population of just over 100, was little more than a few adobe huts on the floodplain of the Tijuana River. It was part of the Rancho de Tia Juana, the largest of six cattle ranches administered from San Diego. The name, Tijuana, may be a corruption of a Diegueno tribal word, "tíjuan," which signifies "by the sea." The name of the rancho as "Llantíjuan," "Lla Tíjuana," or "Tíjuana" appears in several mission records. Many visitors prefer the legend of a Sonora cook with an impressive personality.

The 1910 Mexican Revolution reached Tijuana via Los Angeles, California, the headquarters of the Mexican Liberal Party led by Ricardo Flores Magón who recruited American members of the International Workers of the World to march south. There were two days of skirmishes and fighting (May 10-11, 1911) with a dollar ticket sold to those San Diegans who wished to loot in Tijuana. By 1920, the agglomeration was described as a "Bret Harte mining camp or a Wild West main street scene in the movies, with a dash of Coney Island thrown in." In 1925, the city was formally named Ciudad Zaragoza, after the Mexican Independence leader Ignacio Zaragoza; because local residents persisted in calling it Tijuana, the Mexican Congress acquiesced, and in 1929 Tijuana officially became Tijuana.

Limited transportation technology and the concentration of resources and people in the center of Mexico meant that border cities, such as Tijuana, were isolated from the mainstream of Mexican life. The city's economy was closely linked to that of San Diego, and includes the railroad-related (Tijuana was connected by rail to San Diego before it was connected to Mexico City) boom in the early 1880s, the decade in which a 20 kilometer free trade zone (*zona libre*) was initiated, the stagnation and decline in the 1890s, a flourishing of night clubs during the Prohibition era, and the repatriation of Mexico workers to Tijuana during the Great Depression. The Bracero Program (1942) permitted a Mexican labor force substitute during World War II and was in operation until 1964. Tijuana was an interim destination for migrant workers en route north and the place to which they were deported, a factor to be considered in understanding the evolution asymmetric socioeconomic relationships proposed by Herzog and others. .

Billboards and business signs attest to presence of ethnic groups incorporated into the booming Baja population: Chinese fleeing economic stagnation at the turn of the century, Spanish fleeing civil war in the 1930's, European Jews fleeing Hitler in the 1940s, and Cubans fleeing Castro. Also present are French, German, Italian, Russian, Armenian, Turk, and English settlers. Home to thousands of Asians, South Americans (Argentines and Chileans), Central Americans (Salvadorans and Nicaraguans) and European immigrants or their descendants. Chinese, Korean, Japanese, Filipinos, Canadians and U.S. citizens.

History Notes on Modern Tijuana's Landscape

Tijuana residents take advantage of a wide variety of employment opportunities, ranging from high-tech positions to ditch-digging, to selling paper flowers in the informal economy. Tijuana has the highest federally established minimum wages in the country, the highest employment, and the highest living standards in Mexico.

Indeed, the free-trade zone enables residents to purchase consumer and luxury goods at a cost lower than non-free-trade zones elsewhere in Mexico. Unemployment rates are estimated to be about twenty-five percent in Tijuana compared to over forty percent in the interior.

The spatial expansion from an originally closed urban nucleus is a series of concentric rings reflecting socioeconomic levels, but elongated by major transportation corridors, in this case Avenida Revolución (formerly called Olvera Avenue) and Díaz Ordaz Boulevard (Griffin and Ford, 1980). A westward coastal extension occurs along the road to Ensenada and a southeastern extension toward Tecate. While the city's area is 12,650 hectares (1984), about seven thousand is described as urban with an estimated density of 534 per hectare (1980). The 1990 census registered over 747,000 inhabitants and today there is general consensus that the population is over one million people.

The phenomenal development of Tijuana is predominantly a post 1970 economic activity. Near the golf course by the Agua Caliente racetrack and the Twin Towers, a 5-Star complex are upper class residential developments. All underscore the movement of the CBD from the downtown to the floodplain. The areas of highest income occur near the Agua Caliente race track and the beach community of Playas which we can see from the Monument at Borderfield State Park.

The confluence of the two concrete flood channels marks the sector which was subjected to extreme flooding in 1978 and again, in 1980. Some suggested that the "surprise" over-flow from the dam, with a resultant relocation of 55,000 people permitted the development of the floodplain.

The contradictions and juxtapositions of prosperity and poverty are readily visible in Tijuana's built environment. High-rise office buildings, hotels, condominiums and shopping malls which were constructed in the Zona Rio Tijuana, in the very area that at one time was commonly known as "Cartolandia," derived from the numerous cardboard shacks which served as homes for the economically disadvantaged. The mansions in Chapultepec near the Agua Caliente racetrack, with satellite dishes, carved-wood doors, detailed wrought-iron fences, and sturdy walls to mark property boundaries, contrast with squatter settlements of primitive shacks made of tar paper, wood pallets, and plastic, with structures sometimes upgraded to non-glass windows with rags hanging to keep out dust. These simple structures prevail in the unwanted or undeveloped margins of the urbanized areas and on the steep canyon slopes. In these places tires, chicken wire, or wood scraps delimit the property. Interspersed are homes of wood, brick, or cinder block in various stages of construction.

Just as San Diego has its Mission Valley and Fashion Valley complex, the Rio Tijuana shopping center, complete with a Sears and a Calimax and the Plaza del Rio mark Tijuana's post-1980's shopping centers. These shopping areas are complemented by the Tijuana Culture Center as well as new discotheques and restaurants.

Near the Border, or *la linea*, lies the old downtown and the *Zona Norte* sections of the city well described by Curtis and Arreola (see references). The Mexican road west which skirts the *Zona de Tolerancia*, small remains of the old tawdry Tijuana (Red Light District), parallels the International Border. Tourists in search of cheap trinkets and crowded bars can find these pleasures without venturing beyond the English-speaking tourist strip of Avenida Revolucion. However, there is considerable up-grading to new tourist shopping areas, catering to those pedestrians who take the trolley or bus to the Border and then walk across.

Selected Bibliography

Conover, Ted. 1987. *Coyote: A Journey through the Secret World of America's Illegal Aliens*. New York: Vintage Books. (Easy to read, useful with High School students).

Cook, Casey. 1996. Final Map Project: Operation Gatekeeper. Prepared for Geography 581, San Diego State University.

Croston, Kevin. 1993. "Women's Activities During the Prohibition Era Along the US-Mexican Border," *Journal of Borderland Studies* 8(1): 99-113.

Dwyer, Agust. 1994. *On the Line: Life in the US-Mexican Border*. London: Latin American Bureau. (Easy to read; useful with High School students).

Espinosa, Rik. 1989. *Espinosa's Guide to Baja*. Santa Monica" Roundtable Publishing .

Fredrich, Barbara. 1992. *Baja Bordertown Bonanzas: Tijuana to Tecate*. Association of American Geographers 1992 Field Trip Guide.

Fredrich, Barbara. 1992. "Tijuana: Urbanization of an International Boundary Area," In: P.R.Pryde, ed. *San Diego: An Introduction to the Region*. Dubuque, Iowa: Kendall/Hunt Publishing. pp. 289-300. (Entire paperback is useful for understanding the physical and cultural geography of San Diego County).

Griffin, Ernst and Larry Ford. 1980. "Tijuana: Landscape of a Cultural Hybrid," *The Geographical Review* 70(4): 397-422.

Herzog, Lawrence A. 1990. *Where North Meets South: Cities, Space, and Politics on the US-Mexico Border*. Austin: Center for Mexican American Studies.

Ingraham, Helen, Nancy K. Laney, and David M. Gillilan. 1995. *Divided Waters: Bridging the US-Mexico Border*. Tucson: University of Arizona Press.

Lopez, Silvia. 1998. "Gendered City Images: women and Urban Life in Tijuana, a Mexican Border City," *Historical Geography* 26: 5-25. The author argues that working women (including sexual workers, factory workers, and street vendors) shape urban processes in Tijuana through their economic roles, political activism in the public scene, appropriate some places within the city, and challenging the use and meaning of the urban landscape.

MacLachlan, Ian and Adrian Guillermo Aguilar. 1998. "Maquiladora Myths: Locational and Structural change in Mexico's Export Manufacturing Industry," *Professional Geographer* 50(3): 315-331. (This is a recent source with a good map showing the nationality of majority of ownership of *maquiladora* establishments at selected border points, including Tijuana.

San Diego Union-Tribune frequently presents articles which contrast in the interpretation of events. (See

for example, 10-3-95 article on South Korea's Samsung and 12-27-95 on a squatter community).

Urrea, Luis Alberto. 1993. *Across the Wire: Life and Hard Times on the Mexico Border*. New York: Anchor Books/Doubleday.

GEOGRAPHY FIELD TRIP QUESTIONS

Introduction: The series of questions that follows may assist you make observations during the field trip.

Purpose: Developing a Geographic Eye: Reading Landscapes on a Meso and Micro-scale.

Methods: 1) Teams identify what they expect to see during the course of the field trip.
2) Teams make actual observations and define questions.

Results: 1) Teams synthesize their respective observations and compare these with other teams' experiences.
2) Teams interpret the "new landscape."
3) Teams place field experience in the Five Themes

Sources: 1) Historical Notes and Bibliography near end of this document.
2) Maps near end of this document.

Feedback: Anonymous assessment (Please send comments to Fredrich@mail.sdsu.edu)

A. The exercise of our **senses** to understand a landscape.

1. What colors do we **see** in the landscape?
2. What are the "**smells**" in the landscape?
3. What are the "**sounds**" of the landscape?

B. The exercise of our **spatial thinking** to understand a landscape.

1. How **far is our visibility** today?
2. What do you think is the **direct distance** is to the U.S. Border from SDCOE?
3. What do you think is the **distance by highway/road** from SDCOE to the U.S. Border?
4. What **proportion** of what we see is **residential**?
5. What **proportion** of what **buildings** we see is **more than 4 stories**?

6. What **proportion** of the landscapes we see is **agricultural**?

C. Interpreting the landscape.

- 1.. What are some **visible examples of movement** in the landscape?
2. How would you **classify the residential** housing?
3. What is the **population density**?
4. What is the **tallest building in National City**?
5. What are some examples of **landscape patterns**?
6. What was this **landscape segment like 100 years ago**?
7. What are **social or environmental problems** you can discern within your landscape segment?
8. What are **some solutions** to those problems?

GEOGRAPHY ESSENTIALS: THE FIVE THEMES

I. Location (site and situation). How does the Border indicate absolute and relative location?

II. Place (features and functions). What are some tangible and intangible characteristics that give meaning and character to the Border?

III. Human-Environment Interaction (impact and change). Based on your observations, can you list some ways in which people have shaped the Border and ways in which the Border environment has influenced people?

IV. Movement (people, products, ideas over space). What have you seen that demonstrates this?

V. Regions (common characteristics). What are the elements of the Border region held in common by the U.S. and Mexico?

ALTERNATE. FIELD TRIP

S117 leads past auto-wrecking yards and vegetable farms to the Otay Mesa Border crossing (opened in 1985). Brown Field Municipal Airport (on the north side) is about 1 1/2 miles north of the Tijuana International Airport. One can easily access the city and then proceed west toward Las Playas or take the road to Tecate.

Socio-environmental History

The 1960 basic requirements for Tijuana residential environments are described as deficient for four-fifths of the homes, including three-eighths lacking potable water, and two-thirds without a sewage line. If size of house relative to the number of inhabitants is considered, then about seven-eighths of the households were determined inadequate or deficient in basic requirements.

By 1970, only six percent of homes were fashioned from various grades of adobe and nearly four percent from "other materials," including cardboard. Over three percent exhibited thatched roofs, nearly five percent tin roofs, and nearly ten percent had dirt floors. About forty-six percent had a water-hook-up inside the home and another twelve percent had an outside connection. But over thirty-six percent were without a water source or service. Four-fifths of households had electrical service and nearly two-thirds had a radio or television. Some estimate that 90% have electricity in homes; 30% have telephones, but water problems abound.

A prior review of amenities for several *colonias* is instructive. A view of Obrera, Libertad, Lazaro Cardenas, and Buena Vista shows that nearly all units are supplied with electricity. TV antennas were displayed on one-half of the rooftops; less than one third of the roofs appeared to be of faulty construction. Over a fifth of the units appeared to be sagging; about one-half of the porches were damaged; nearly seven eighths contained glassed widows; and two-thirds of the units appeared to be an expression of a planned as opposed to squatter settlement. Most (nine-tenths) of the units were fenced; plants were observed growing in two-fifths of the yards; cisterns were visible in a fourth of the yards; about one fifth of the driveway were paved; nearly half on the streets were paved and more than forty percent of the streets had sidewalks. Buena Vista was delimited by 1950, a period which marked the addition of at least 41 other residential districts in Tijuana. Both Lazaro Cardenas and Obrera exemplify late 1960 urban expansion (Griffin and Ford, 1976, 447). The latter was under public service regulation by 1972; however, L. Cardenas did not receive public services until 1981 (Ramirez). All have experienced in situ accretion.

Another study which was conducted in 1982 by the Centro de Ecodesarrollo (CECODES), detailed self-help housing construction (auto-construction) conditions for 81 home sites in several indeterminate

colonias in Tijuana (Hiernauz, 1986). That research found that three-fifths of the homes surveyed were less than 100 square meters in size. Over half were constructed from used lumber and a fifth were fashioned with dry wall (both often obtained indirectly from the U.S.). About seven-eighths had a latrine, one-third were serviced with electricity, but only one-ninth were connected to a potable water line; two thirds utilized a water spigot in the vicinity. The urban amenities available to those sampled in 1982 were minimal and likely indicative of recent residential development by persons whose economic means might be described as marginal.

The contrasts of the Libertad housing: small, well-kept, single storied with a small porch, flat roof, and a fence. Core residential blocks can be distinguished by fence type, typically Another data set is collected from the environmental section of a valley fever medical questionnaire, with a sample population of 240 of the total of 1100 participants (Fredrich 1989). The variables, such as presence of potable water, bath, kitchen, dirt floors, paved streets, pets, and gardens are similar to those queried in the 1980 census (Statistical Abstract of Latin America 1987, Statistical Yearbook 1982, Anuario Estadístico de América Latina 1987). Nearly one-half of these medical-survey participants attended elementary schools, and the rest attended secondary schools, technical institutes, universities, or were gainfully employed in a border industry, their *colonias* were determined to be middle-class.

Twenty-three socio-environmental variables were analyzed. The mean age of participants in the medical survey by Fredrich, 15, is partially explained by the school age population. Intra-urban mobility may be deduced by comparison of the number of years residing in Tijuana with the number of years in a given *colonia*. In each case, the length of time in Tijuana is significantly greater than the number of years in their present neighborhood. The number of persons per household, over 6, reflects the typically large Mexican family and likely includes members of the extended family. With the exception of Lazaro Cardenas, over fourth-fifths of the homes have access to potable water and some kind of drainage connection. For the vast majority, the kitchen was located inside the house, separately, as one of typically four rooms Chimneys and dirt floors were rare. Inside bath facilities were present in most Libertad and Buena Vista homes. Not so for Colonias Obrera and Lazaro Cardenas, whose residents must compensate by constructing latrines.

Efforts in ornamental landscape are apparent for three-fourths of the population, although only a fifth claimed to have a vegetable garden. Finally, apart from domestic pets, dogs in nearly two thirds of the homes and cats in one-third of the homes, a very, very small portion, about 10 percent, practiced animal husbandry at home.

Stop 1: Otay Mesa (U.S.) {22}

Stop No. 2: Colonia Mirador near Las Playas {44}

The main street, Boulevard Mirador, bisects this rather narrow section of the mesa. We make a left turn to the north for a view of the park and the housing development along the north-facing ridge. Two decades ago, this sector would have been classified a lower middle class unit. Seven years ago a new potable water line was installed. There was a major breakage in 1988, a fairly common event. In addition, the large riser allows the soils on the mesa to saturate before the excess water spills down slope. Now, with the upgrading of amenities, it is solidly middle class. Nevertheless, the numerous potholes in the street attest to the inadequacy in basic provision of services.

The north rim of the mesa provides an overview of the highway interchange that includes the highway returning to the CBD and the free road to Ensenada.

Returning to Boulevard Mirador, if time permits we head south and east, zig-zagging several blocks, descending a steep hill, and passing through a lower-class neighborhood. In addition to the normal use of cobblestones, notice the use of tires as retaining walls. We cross an intermittent stream (noticeable sewage) and head south on the free road to Ensenada. Homes are constructed from a variety of materials, including plastic, wood, tin, and cardboard. Current estimates suggest that 40% of the city's residents have no drainage of any kind, 30% have no potable water, and 50% of the area no pavement. If we are short of time, we return to the main highway leading southeast. This highway circles the hills to the south and east of Tijuana. Note the "swap meet" activities as well as the squatter (*paracaidistas* or parachutists) settlements.

We take the Fundadores exit to the left (north). It leads through several middle class *colonias* (including from south to north *Terrazas del Rubi* and other 'Rubi' variants, *Fundadores del Norte*, *Colonia Guadalajara*, and *Colonia Juarez*, before terminating at Agua Caliente Boulevard (the classic spine in the Griffin-Ford Latin American city model). Further southeast the street is named Diaz Ordaz Boulevard. We make a right (southeast) turn and proceed along the spine, passing by the golf course, Twin Towers, the racetrack, and the bullring.

Stop No. 3: Lunch {58}.

Leaving a restaurant, we retrace our route about one mile and make a left turn to the Agua Caliente Racetrack. The new stands and facilities were constructed about 1972. On our right is the U.S. Consulate. We turn (left) down hill, and then turn right further downhill before ascending the mesa via Avenida del Fresno.

Stop No. 4: Lomas de Chapultepec {63}.

Chapultepec is a general term to describe the upper-middle and upper class residential area broadly located near the racetrack (the Hippodromo). The water tower is a prominent feature. Rubble from the recent construction is evident. Panoramic views of golf course, Twin Towers, and general floodplain development are possible. To the north on mesas facing Chapultepec are other residential communities which lack amenities; notice the unpaved streets and minimal vegetation. In the distance are Otay Mesa and the Border. On the south and west side of the mesa are undeveloped or partially developed canyons.

We descend the steep hill, noting the new homes in construction. We skirt the south side of the racetrack before returning to Diaz Ordaz Boulevard. Several major cross streets enable traffic to flow from this "old artery" to the floodplain. One such example, Calzada Lazaro Cardenas, crosses to the northeast and passes near the bus station. This station is the "gateway" to employment opportunities in Tijuana as well as South West. We return to the main highway which leads to Tecate, located some 34 kilometers away in an interior valley at an elevation of 1690 feet. Note the agricultural activities, including olive orchards, vineyards, grain farming, feedlot operations, and dairy farms. Truck and bus traffic can be extremely congested during weekdays along this highway.

West of Tecate we will pass by Rancho La Puerta. Founded in June 1940; this is an exclusive resort and health spa specializing in physical fitness.

Stop No. 5: Tecate {98}.

The population of Tecate is approximately 70,000. The town is more "typical" of southern Mexico--a central plaza with large shade trees, park benches, and small kiosks. The "small agriculturally-based town" image is somewhat deceiving because the city has also experienced considerable development in *maquiladoras*. In contrast to the clustering effect of *maquiladoras* in Tijuana, the assembly plants are scattered throughout the town or outside to the east and the west.

In 1980 there were 10-15 small operations; however, by 1986 the number had increased to 38, and by 1988 there were 88 *maquiladoras* which employed some 4000 workers. The number in 1990 was 98 *maquiladoras* employing 5600 workers, according to Jose Luis Ascolani, the Baja representative of the Secretariat of Commerce and Industrial Development (SCOFI). About 60% of the Tecate plants are unionized (the Confederation of Mexican Workers (CTM); the Regular Confederation of Mexican Workers (CROM), or the Revolutionary Confederation of Workers and Field Hands (CROC). Workers may earn slightly less than those in Tijuana. Wages are about \$1.10 per hour, including benefits, for a 48 hour work week. The place of origin for workers typically includes the states of Guerrero, Oaxaca, Michoacan, Jalisco, and Durango. It used to be they moved directly to Tijuana; now they stay in Tecate. However, provision of housing remains a problem in Tecate. If workers are unsuccessful in encountering appropriate lodging, they may choose to go to Mexicali or Tijuana. Maquiladora workers tend to be a little older than those in Tijuana; the sex ratio is about 34% male to 66% female.

Miguel Chavez, vice-president of the *maquiladora* association and owner of several plants in Tecate, thinks that the industry has significantly bolstered the local economy. Part of the success is attributed to the relaxed homey environment which translates to less turn-over, less distance on the journey to work, less traffic, and abundant and reliable supplies of electricity and water. The Autonomous University of Baja California (UABC) opened a branch in what was the city's former convention center.

There are some possibly familiar products from Tecate's *maquiladoras*. For example, Ceramic Regal Mexico (to the east of town) makes *chia* pets, ceramic figures of animals that sprout greenery when covered with a paste of seeds. WAM industries, one of Tecate's oldest *maquiladoras*, makes transformers for amplifiers. South of downtown is Industrial Tecnologica del Pacifico makes parts for space vehicles. Talleres La Sierra Valcario, manufactures oak products for Ross Furniture, its parent company in Los Angeles. Oak planks, obtained from eastern U.S. sources at a rate of three truckloads a week, are unloaded at a side dock, and from there the wood is moved in a semi-circle through computerized equipment where it is measured and smoothed, glued, sanded, and cut before being assembled into various products. TECRA makes Schlage doorknobs and deadbolt systems.

The famous Tecate Brewery was established in 1929; 14 years later it began producing beer under its own label. Cerveceria Cuauhtemoc produces nearly 7 million gallons of beer per month, and at peak production employs three shifts totaling 2,000 persons 90% of whom are men. Wages are similar to that at the *maquiladoras*.

If time permits, we may stop at the Centro Artesanal; if not, we will proceed to the Border and return to

San Diego via Highway 94. This route takes us through east county farms and new residential development. Land-use patterns are in transition as the population increases in east San Diego County.

Additional binational controversy can easily be created, by for example, an effort initiated to control drainage and discourage illegal crossing by constructing a four-mile ditch.

Anonymous Feedback: Appraisal of Teaching Performance

August 7, 1998: The U.S.-Mexico Border (Fredrich)

Instructions: Please respond to each of the items by placing an X on the blank below the appropriate letter from the following scale:

- A--Completely or usually done
- B--Only partially or rarely done
- C--Not done
- D--No applicable or can't recall

Any extra comments are welcome.

| | | | A | B | C | D |
|--|---|---|---|---|---|---|
| 1. Provided a learning set | — | — | — | — | | |
| 2. Used clear, useful examples to illustrate ideas | — | — | — | — | | |
| 3. Presented information related to workshop | | — | — | — | — | |
| 4. Provided continuity between segments of trip | | — | — | — | — | |
| 5. Sequenced information to | | | | | | |

clarify relationships among
components

— — — —

6. Answered questions and
stimulated follow-up questions

— — — —

A. What was the most useful or meaningful thing you learned this morning?

B. What question(s) remain uppermost in your mind as we end this section of the field trip?

How could we create a journal (our primary source), then assimilate evidence chronologically, write a script, dramatize the events of the journey.

When we record these images, which seems best?

1. writing
2. sketching
3. mapping
4. photography
5. interviewing

ON BAJA TWO-DAY

Introduction:

Concept of Regional Analysis: the California tax base for Hispanics is eroding whereas the WASP base is increasing. There is a binational synergism of death and disease. There is a separate political system, but not physical realities. Geographic permutations of the Border in the growing magnitude of undocumented migration. A question of mutual interdependency.

Concept of Binational Research

terms such as ghetto, barrios, enclaves, under-classed communities, or colonias extend to more than the Border situation and tendency to use word as pejorative. What constitutes private space versus what comprises public space differs in each society. Also what level of misery can a state tolerate? What should they tolerate? Questions of personal rights to property versus community rights.

Poverty is binational. Are some of the California communities near the Border among the poorest in California (as the Texas communities are among the poorest in the U.S.)? Solutions are difficult to be binational; the difference is in the context of the two countries. Classical political solutions are different than community solutions. Planning has tended to ignore the "other side." This

fragmented approach applies to more than health care delivery.

Solutions require concerted action by both sides, requires the facing of the realities of two governments and two resource bases at their disposal to resolve problems. Resolution of problems is guided by the empirical validation of research conducted by academics from both sides.

7-7-89. The Tribune. article on El Florid, "the flowering" in east Tijuana. didn't exist in 1984, now a population of 50,000.

SD Union, 5-1-1988. Article on Counseling the Colonias. Deals with trouble in the city slums. alcoholism, violence, isolation, and despair in the marginal colonias as common as hunger and disease. shows efforts of counselor to de-mystify psychology to Mexicans who think it is for the rich or crazy. Work in the squatter settlement of Flores Magon and elsewhere. an area ' bulge with the disenfranchised from Mexico and central America, hopeless people who sought prosperity in the north and found only more poverty. Manzo works for the Tijuana based organization of Community Social Medicine, funded primarily by Project Concern of San Diego. Effort to help neighborhood to help itself.

Casa de Cultura built as 3-story elementary school in 1929 became Cultural in mid-1970s where the government subsidized institute offers regular exhibitions of students work and concert performances; about 1000 students learn art and sculpture; all ages. within the city, good connections with major markets.

same article notes that Mexico will earn close to \$75 million from the sale of electricity, generated from the Cerro Prieto geothermal plant, 20 miles east of Mexicali to SD G.&E.

Americans Foundation, a SD -based non-profit group solicits volunteers and donations to nearly quadruple the size of a preschool and clinic in a poor neighborhood. "Jardin de Ninos" I (in the colonia Esperanza La Mesa area of east TJ in cooperation with TJ civil engineers from the Technological Institute of Tijuana, Rotary club on both sides. Newspaper described 20 % of the neighborhood have running water. Most of the community's 8,000 inhabitants live in 8 foot by 8 foot wooden buildings with dirt floors. There is no drainage system. Prior to the first medical clinic and preschool constructed in 1988, there were no social institutions. Dec. 23, 1990, SD Union.

What colors do we see in the landscape?

1. freeway concrete, ribbon of light gray
2. freeway landscaping (colorful or lush green)
3. color of sky? clear blue, cloudy, hazy?
4. colors of residences -- creamy or bold?

What are the "smells" in the landscape?

1. urban smell (pollution)
2. rural smell (horses, chickens, tomato fields)
3. the "ocean" smell
4. the polluted Tijuana river smell
5. the smell of coastal sage and chaparral

What are the "sounds" of the landscape?

1. horn beeping a lot/little
2. noise of vehicles on freeways
3. a lot of sirens?
4. wind off ocean
5. children playing
6. loud thud-thud bass of car radios?

How far is our visibility today?

1. 1-5 miles
2. 6-10 miles
3. 11-15 miles
4. 16-20 miles
5. over 20 miles

What do you think the distance is to the U.S. Border from

SDCOE?

1. 5-9 miles
2. 10-15 miles
3. 15-19 miles
4. 20-24 miles
5. 25-29 miles

What are some visible examples of movement in the landscape?

1. cars
2. buses
3. trucks
4. trolleys
5. train Amtrak
6. ships Navy
7. boats & yachts
8. airplanes
9. pedestrians, people playing games
10. bicyclists
11. surfers
12. skaters
13. birds in flight
14. dogs running
15. river flowers (SD and TJ and Sweetwater)
16. tidal changes
17. wave action
18. wind gusts blow dust, leaves
19. kites
20. horses
21. snakes

What is the texture to the landscape?

1. Is everything about the same (even, like a lawn)?
2. What are the accents to the visible landscape?
3. Is it a complex mosaic? factories, parks, residences?

What are some examples of landscape patterns?

1. patterns of human activity
2. presence of churches or cemeteries?
3. where are the parks or recreation?
4. what kinds of industrial activity are evident?
5. presence of shopping malls/arcades?
6. presence of major grocery stores
7. presence of factory outlets?

What are the layers?

1. S.D. Bay
2. tidelands and coastal plain
3. the Tijuana River
4. any agriculture/animal husbandry?
5. what proportion is residential?
how would you classify the housing?

single family
multiple residences

6. what is the population density?

How do we record these images?

1. writing
2. sketching
3. mapping
4. photography
5. interviewing

What does Border Art show?

What is the difference between immigration and migration?

How do we create a journal (our primary source), then assimilate evidence chronologically, write a script, dramatize the events of the journey.

What books exist about the U.S.-Mexican Border?

What was the Border like 100 years ago?

The Tijuana Watershed: Where does it start? What are the problems? What are some solutions?

Departure: SDCOE 8:15 August 7, 1998

Meet **Gloria Chavez**, U.S. Border Patrol representative who will accompany us to the U.S.-Mexico border.

Itinerary: SDCOE to U.S. Border Patrol Office in Imperial Beach. arrive at 8:50. See a 20-25 minute film on U.S. Border Patrol activities.

9:30 Brief question and answer period. Re-board bus.

9:45 Depart for the Border via Dairy Mart Road.

10-10:30 Brief stops along Monument Road and Borderfield State Park.

10:45 Re-board bus. Depart for South Levee area to see fence construction

11:00 Re-board bus. Take 905 to Cactus Road.

11:45 Return to U.S. Border Patrol Station, Imperial Beach.

12:00-12:45 Bag lunch TBA.

Concomitant with increased interaction, the stereotypic images of an alien, mysterious, and dangerous society, residing in an unearthly hell will be balanced an appreciation for the cultural output of scholars, musicians, writers and artists, supported by various universities, a cultural center, in what could be the Hong Kong of the future, but a society which is inexorably linked to the wealthiest state and most populous region of the U.S.A.